

### REMARKS

Applicants thank the Examiner for the review of the claims to date. After entry of this amendment, claims 1 through 33 will be pending. No claims have been amended, and new Claim 33 has been added. Support for the new claim is found in the specification. No new matter has been added.

#### Rejection of claims 1-16 under 35 U.S.C. §102(e)

The Examiner rejected claims 1-16 under 35 U.S.C. §102(e) as being anticipated by Kipke et al (U.S. Patent 6,592,566) ("Kipke"). The rejection is respectfully traversed.

To anticipate a claim, the reference must teach every element of the claim. A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Kipke fails to meet the standard for anticipation. The Office Action cited Kipke for the proposition that Kipke teaches a method for forming an endovascular occlusion comprising controlling the injection parameters of purified alginate liquid and a calcium chloride solution into a vascular site (abstract, col. 13, lns. 10-20, and col. 4, lns. 35-47). However, as discussed herein, Kipke does not anticipate because it does not teach all elements of the present invention. Consequently, Applicants request that the rejection be withdrawn and that Claims 1 - 16 be allowed.

The present invention comprises independent Claim 1, which claims:

A method for forming an endovascular occlusion comprising the step of controlling injection of a purified alginate liquid and injection of a calcium chloride solution to a targeted area within a vascular system, where injection of the purified alginate liquid and injection of the calcium chloride solution begin or end asynchronously. [Emphasis added]

Thus, as set out in Claim 1, without limiting the scope of the invention, the present invention comprises the novel element "where injection of the purified alginate liquid and injection of the calcium chloride solution begin or end asynchronously".

In contrast, the cited reference, Kipke, does not teach or disclose injection where the purified alginate liquid and calcium chloride injections begin or end asynchronously. Instead,

Kipke teaches only that the injection of the two components liquids must be "simultaneous." (e.g., Kipke at Claim 1). Consequently, because Kipke lacks this required element of the present invention, it does not anticipate the present invention, and Claim 1 and its dependent Claims 2 – 16 should be allowed.

In addition, the Office Action contains no discussion of how Kipke teaches or discloses the respective additional elements of dependent Claims 2-16 of the present application. In this regard, the Office Action fails to establish a *prima facie* case of anticipation for at least those Claims, and the Claims should be allowed as written.

Finally, new Claim 33 has been added, which depends from Claim 1, with the further novel specification that the purified liquid alginate be of a molecular weight from about 65,000 to about 200,000. This novel additional element is not taught by the cited art, and the claim should therefore be allowed.

For at least these reasons, Applicants respectfully request that the rejection be withdrawn and that Claims 1 – 16 be allowed as written, along with Claim 33.

#### **Rejection of claims 1-32 under 35 U.S.C. §103**

The Office Action rejected Claims 1-32 as unpatentable under 35 U.S.C. §103 as being obvious over Kipke. The Office Action also rejected Claims 1-32 as unpatentable under 35 U.S.C. §103 as being obvious over Cochrum et al. (U.S. Patent 5,614,204) ("Cochrum") in view of Kipke. The rejections are respectfully traversed.

It is well known that "[t]o establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). Moreover, the mere fact that references can be combined or modified does not render the resulting combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990).

The above discussion of Kipke's deficits is hereby incorporated. As set out above, Kipke does not teach or disclose injection into a vascular system where the purified alginate liquid and calcium chloride injections begin or end asynchronously, as required by independent Claims 1, 17, 23, 26, and 27, and their respective dependent claims. With respect to independent Claim 25, Kipke does not teach or disclose at least the elements of providing an ion-permeable balloon to a targeted area in a vascular system and injecting the two components into the balloon. There is also no showing in the Office Action that Kipke

teaches or discloses the respective additional elements of the dependent claims of the present application. The Office Action thus fails to establish a *prima facie* case of obviousness for each claim in the present application. For at least these reasons, the rejection should be withdrawn, and Claims 1 – 32 should be allowed.

The Office Action also rejected Claims 1-32 as unpatentable under §103(a) over Cochrum in view of Kipke. However, the Office Action acknowledges that Cochrum does not teach controlled and simultaneous administration of vascular occlusive agents comprising alginate and calcium chloride. Moreover, neither Cochrum nor Kipke discloses the novel feature of the present invention of injecting alginate and calcium chloride solution where the injections of the components begin or end asynchronously. The continuing deficit of Kipke does not cure the deficits of Cochrum. There is also no showing in the Office Action that the combination of Cochrum and Kipke teaches all elements of independent Claim 25, or of the respective additional elements of the dependent claims in the present application. For at least these reasons, the rejections should be withdrawn and Claims 1 – 32 should be allowed.


CONCLUSION

For at least these reasons, this application is now in condition for allowance. It is believed that any additional fees due with respect to this paper have already been identified in any transmittal accompanying this paper.

However, if any additional fees are required in connection with the filing of this paper that are not identified in any accompanying transmittal, permission is given to charge Deposit Account number 18-0013 under Order No. 65306-0092 in the name of Rader, Fishman and Grauer PLLC. If the Examiner has any questions or comments, the Examiner is kindly urged to call the undersigned to facilitate prosecution.

Respectfully submitted,

Date: November 10, 2005

  
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